Water Quality

2003

annual REPORT

Overview

In 2003, as in years past, the City of Salina's tap water met all U.S. Environmental Protection Agency (EPA) and State of Kansas Department of Health and Environment (KDHE) drinking water health standards. City of Salina Water Division vigilantly safeguards its water supplies and again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard.

Spanish (Espanol)
Este informe contiene informacion muy importante sobre la calidad de su agua beber. Traduscalo o hable con alguien que lo entienda bien.

City of Salina

Required Additional Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Water Source

In 2003, we treated approximately 1.1 billion gallons from 15 public water supply wells located in the Downtown Well Field and approximately 1.4 billion gallons of surface water from the Smoky Hill River.

Source water assessment and its availability

The source water assessment for the City of Salina Water Supply is available for examination at the office of the City Clerk; 300 W. Ash, Room 206 or at the Salina Water Treatment Plant, 401 S.5th St.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Public Participation Opportunities

The Salina City Commission meets at 4 p.m. on Mondays at the City-County Building, 300 W. Ash. You may present items related to water issues at the commission meeting or express your concerns to Martha Tasker, Utilities Director or to Jim Wendell, Water Superintendent, during normal office hours.

Water Conservation

Again this year, the City of Salina is asking Salina area water users to be good stewards of our natural resources. The drought of the previous several years has greatly depleted the ground water in the Salina area. Continued diligence in conserving both Salina tap water and ground water in this area will assist in maintaining the water table until recharge occurs.

Results of voluntary monitoring

The City of Salina's Water Treatment Plant consistently produces water that meets or exceeds all Kansas Department of Health & Environment (KDHE) and U.S Environmental Protection Agency (U.S. EPA) standards for safe drinking water. Certified laboratories analyze water samples at various points in the treatment process on a daily basis. Samples are also obtained on a regular basis to insure the water quality standard is maintained throughout the distribution system. In addition to the testing we are required to perform, the Water Division voluntarily tests for many additional substances and microscopic organisms to make certain our drinking water is safe and of high quality. Approximately 80,000 samples are taken and analyzed each year to provide quality assurance.

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants (units)	MCLG or MRDLG	MCL TT or MRDL	Salina Water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfectants & Disinfection By-Products								
Haloacetic Acids (HAA5) (ppb)	NA	60	24.56	14	35	2003	No	By-product of drinking water chlorination
Chloramine (as Cl2) (mg/l)	4	4	2.8	2.5	3.1	2003	No	Water additive used to control microbes
Inorganic Contaminants								
Arsenic (ppb)	0	50	1.3		NA	2003	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.018		NA	2003	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	2.9		NA	2003	No	Discharge from steel and pulp mills; Erosion of natural deposits
Nitrate (ppm) [measured as Nitrogen]	10	10	0.13		NA	2003	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	50	50	10		NA	2003	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Fluoride (ppm)	4	4	0.97	0.75	0.97	2003	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Microbiological Contaminants								
Fecal coliform/E. coli (positive samples)	0	0	0		NA	2003	No	Human and animal fecal waste
	A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.							
Turbidity (NTU)	NA	0.3	0.25 (TT)		NA	2003	No	Soil runoff
	The highest single measurement was 0.3. Any measurement in excess of 1.0 is a violation unless otherwise approved by the state.							
Synthetic Organic Contaminants including Pesticides and Herbicides								
Atrazine (ppb)	3	3	0.3		NA	2003	No	Runoff from herbicide used on row crops
Volatile Organic Contaminants								
TTHMs [Total Trihalomethanes] (ppb)	NA	80	52.13	25	87	2003	No	By-product of drinking water disinfection

Contaminants	MCLG	AL	Salina Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source

Inorganic Contaminants

Copper - action level at consumer taps (ppm)	1.3	1.3	0.048	2003	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	0	15	1.5	2003	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Undetected Contaminants

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCL or MRDLG	MCL or MRDL	Salina Water		Violation	Typical Source

Radioactive Contaminants

Alpha emitters (pCi/l)	0	15	ND		No	Erosion of natural deposits

Additional Quality Parameters

Parameter	Units
Alkalinity as CaCO3 (ppm)	87
Aluminum (ppb)	80
Calcium (ppm)	36
Chloride (ppm)	180
Magnesium (ppm)	5.8
Potassium (ppm)	9.4
Silica (ppm)	9.4
Sodium (ppm)	190
Sulfate (ppm)	200
Total Dissolved Solids (ppm)	690
Total Hardness (ppm)	110
Zinc (ppm)	ND
pH	7.5

City of Salina

For more information please contact:

Martha Tasker
300 W. Ash St.
Salina, KS 67401
Phone: 785-309-5725
Fax: 785-309-5713
Email: martha.tasker@salina.org

Website: http://www.salina-ks.gov

Jim Wendell
401 S. 5th St.
Salina, KS 67401
Phone: 785-826-7305
Fax: 785-826-7256
Email: jim.wendell@salina.org

Important Drinking Water Definitions:

MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MNR: Monitored Not Regulated

MPL: State Assigned Maximum Permissible Level

Unit Descriptions

mg/l: Number of milligrams of substance in one liter of water

ppm: parts per million, or milligrams per liter (mg/l)

ppb: parts per billion, or micrograms per liter (µg/l)

pCi/l: picocuries per liter (a measure of radioactivity)

NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

positive samples/yr: The number of positive samples taken that year

NA: not applicable

ND: Not detected

NR: Monitoring not required, but recommended.